

WHAT IS CLAIMED IS:

1. An image reading device comprising:

light irradiating means for moving and scanning  
5 the surface of a document table while irradiating the  
light;

color photoelectric conversion means for reading  
the reflected light of the light from the light  
irradiating means and photoelectric converting into  
10 plural color signals; and

correction means for executing a color balance  
correction and a stray light correction simultaneously  
with the execution of a shading correction of plural  
signals that are photoelectric converted by the color  
15 photoelectric conversion means.

2. An image reading device according to claim 1  
further comprising:

storage means for storing signal data comprising  
20 plural color signals that are photoelectric converted  
by the color photoelectric conversion means;

wherein the correction means executes the color  
balance correction and the stray light correction  
simultaneously with the execution of the shading  
25 correction based on the signal data stored in the  
storage means.

3. An image reading device according to claim 2 further comprising:

white reference means provided at the side of the document table for being read and photoelectric converted by the color photoelectric conversion means;

wherein the storage means stores white document data comprising plural color signals that are read and photoelectric converted by the color photoelectric conversion means from a white document in color equivalent to the white reference means placed on the document table; and

wherein the correction means executes the color balance correction and the stray light correction simultaneously with the execution of the shading correction based on the white document data stored in the storage means.

4. An image reading device according to claim 3, wherein the correction means executes the shading correction and at the same time, the stray light correction by setting the white document data stored in the storage means as desired values and executes the white balance correction by correlating the white reference means with the white reference data comprising plural color signals that are read and

photoelectric converted by the color photoelectric conversion means and the white document data stored in the storage means.

5           5. An image reading device according to claim 4, wherein the correction means further executes the correction of uneven density in the moving and scanning direction of the light irradiating means simultaneously with the other corrections.

10           6. An image reading device according to claim 5, wherein the storage means stores sub-scanning data comprising plural color signals that are plural positions in the moving and scanning direction of a  
15 uniform density image document placed on the document table read and photoelectric converted by the color photoelectric conversion means; and

20           the correction means executes the uneven density correction by executing the color balance correction by setting the sub-scanning data stored in the storage means as desired values for the color balance correction.

25           7. An image reading device according to claim 6, wherein the sub-scanning data comprises a mean value of plural pixels at plural positions in the moving and

scanning direction.

8. An image reading device comprising:

5 a light irradiating device for moving and  
scanning the surface of a document while irradiating  
the light;

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10 a color CCD sensor for reading the reflected  
light of the light from the light irradiating device  
and photoelectric converting into plural color  
signals; and

15 a correction device for executing a color balance  
correction and a stray light correction simultaneously  
with the execution of a shading correction of plural  
color signals that are photoelectric converted by the  
color CCD sensor.

9. An image reading device according to claim 8  
further comprising:

20 a storage device for storing signal data  
comprising plural color signals that are photoelectric  
converted by the color CCD sensor;

25 wherein the correction means executes the color  
balance correction and the stray light correction  
simultaneously with the execution of the shading  
correction based on the signal data stored in the  
storage device.

10. An image reading device according to claim 9 further comprising:

a white shading correction plate provided at the side of the document table for being read and photoelectric converted by the color CCD sensor;

wherein the storage device stores white document data comprising plural color signals that are read and photoelectric converted by the color CCD sensor from a white document in color equivalent to the to the white shading correction plate placed on the document table; and

wherein the correction device executes the color balance correction and the stray light correction simultaneously with the execution of the shading correction based on the white document data stored in the storage device.

11. An image reading device according to claim 10, wherein the correction device executes the shading correction and at the same time, the stray light correction simultaneously by setting the white document data stored in the storage device as desired values and executes the color balance correction by correlating the white reference data comprising plural color signals that are the shading correction plate

read and photoelectric converted by the color CCD sensor with the white document data stored in the storage device.

15. An image reading device comprising:

light irradiating means for moving and scanning a document while irradiating the light to the document  
5 table;

color photoelectric conversion means for reading the reflected light of the light from the light irradiating means and photoelectric converting it into plural color signals; and

10 correction means for correcting the uneven density of plural color signals that are photoelectric converted by the color photoelectric conversion means in the moving and scanning direction of the light irradiating means.

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16. An image reading device according to claim 15 further comprising:

storage means for storing signal data comprising plural color signals that are photoelectric converted  
20 by the color photoelectric conversion means;

wherein the correction means executes the uneven density correction by executing the color balance correction based on the signal data stored in the storage means.

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17. An image reading device according to claim 16,

wherein the storage means stores the sub-scanning data comprising plural color signals that are the plural positions in the moving and scanning direction of the uniform density image document placed on the document  
5 table, read and photoelectric converted by the color photoelectric conversion means, and

the correction means executes the uneven density correction by executing the color balance correction using the sub-scanning data stored in the storage  
10 means as desired values for the color balance correction.

18. An image reading device according to claim 17,  
wherein the sub-scanning data comprises a mean value  
15 of plural pixels at the plural positions in the moving and scanning direction.